BIO 2523 SS 13 Dr Worksheet: Chapter 2, Worksheet 1 ANSWER KEY Dr Leaden: Extra Credit

1. Small insects have the ability to walk on water because of the water property known as _____**Cohesion**_____.
2. An unstable nucleus is an indication of an _____**isotope**_____. To correct this imbalance, we expect the nucleus to break up in a process described as _____**radioactive decay**_____.
3. The Octet Rule is satisfied if _____**there are 8 electrons in the outermost energy level, therefore, atoms are not looking to accept nor donate any electrons**_____.
4. The _____**covalent**_____ bond is ideal for forming molecules because it is strong and directional.
5. Reactive atoms have _____**unfilled energy levels**_____.
6. In a bond, when one nucleus has a higher affinity (attraction) for electrons than the other, we refer to it as a ___**Polar**___ ___**Covalent**___ bond.
7. At low temperatures the Hydrogen bonds of water molecules are ___**less**___ likely to break, resulting in the formation of _____**ice**_____. However, at high temperatures the Hydrogen bonds of water molecules are ___**more**___ likely to break, resulting in the formation of ___**gas**___.
8. Which property of water prevents our blood from freezing, therefore allowing our body to remain a constant temperature? _____**Heat Storage**_____.
9. As water freezes the molecules of water become ___**farther apart**___ from one another, making ice ___**less**___ dense than water.
10. When water dissociates it forms _____**OH**_____ and _____, **H**_____.
11. pH measures the concentration of _____**H**_____.
12. You are examining a cell with environmental pH of 8. You want to make the environment more acidic. What are you going to do to the pH? _____**You are going to increase it by raising the concentration of H+ in the cell's environment.**_____.
13. What term do we use to describe an atom with an unequal amount of protons and electrons? _____**Ions**_____.
14. A cation has ___**more**___ protons than electrons, giving it a _____**positive charge**_____. An anion has ___**fewer**___ protons than electrons, giving it a _____**negative charge**_____.
15. Chemicals that help keep pH in a normal range are called _____**buffers**_____.